ABSTRACT OF THE DISCLOSURE

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The conventional address translation techniques cannot allow multiple terminal devices to be accessed by using one identical port number because they can associates one port number with only one device if the terminals do not support encapsulation.

According to the present invention, access from a global network to a private network is restricted in accordance with an access control rule established for each device or network sending a packet. Furthermore, address translation is performed in accordance with address translation rules established on a per sending device basis to provide communication between a global network and a private network.

When a connection request is received from the global network and if authentication of the connection request is successful, an access control rule is established on a per sending device basis or on a per sending network basis and recorded. After the communication ends, the added access control rule and address translation rule are deleted.